per patient QALYs was 0.849 and 0.841 respectively. Viremia remained undetectable and CD4 stable in all patients. Additionally, other parameters such as Cholesterol, HDL and Triglycerides levels improved when switching from STR-containing EFV to Rilpivirine-based STR. VAS analysis of health status perception also increased overall from 82.78 to 83.79 (scale: 0-100) due to the improvement in the STR-containing RPV arm. STR with RPV dominated (i.e. was more effective and less costly) EFV STR regimen, as measured by outcomes. **CONCLUSIONS:** Switching from STR containing Efavirenz to STR containing Rilpivirine is a safe, well tolerated strategy that improves the overall health status of HIV–treated patients. The switch does not expose patients to a risk of virologic failure due to possible PK interactions of the drugs. RPV compared to EFV resulted cost-effective showing lower cost and higher outcome measure values.

PIN80

THE COST-EFFECTIVENESS ANALYSIS FOR HIV TREATMENT ALTERNATIVES IN TURKEY

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OBJECTIVES: HIV is a life-threatening disease in terms of a major global public health problem. This analysis evaluates the cost-effectiveness comparison of HIV-1 treatment alternatives including lamivudine+zidovudine+efavirenz (3TC/AZT+EFV), tenofovir DF+emtricitabine+efavirenz (FTC/TDF+EFV), tenofovir DF+emtricitabine+ritonavir+ lopinavir (FTC/TDF+LPV/r), tenofovir DF+emtricitabine+ darunavir (FTC/TDF+ DRV+ r), and elvitegravir+cobicistat+emtricitabine+tenofovir DF (STRIBILD). **METHODS:** This analysis compares the HIV treatment alternatives of 3TC/AZT+ EFV, FTC/TDF+EFV, FTC/TDF+LPV/r, FTC/TDF+DRV+ r and STRIBILD. The adherence rates were calculated from the increase rate in CD4 cell count and the risk of hospitalization as the effectiveness values. The data were taken from patient files from Hacettepe University that consists of 252 patients and 12 year follow-ups with an outpatient clinic, interventions, laboratory and imaging tests, medication usage, side effects, comorbidity's diseases and their treatments and complications. The costs of treatment of diseases were calculated by cost of disease methodology. Average annual cost per patient is calculated for health care technologies. Health technology effectiveness values are found from the literature review. Virological response success is used from clinical studies as an end-point for this analysis. The treatment cost comparison is calculated with the incremental cost effectiveness-ratio (ICER). **RESULTS:** Results of the clinical effectiveness of the treatment alternatives of 3TC/AZT+ EFV, FTC/TDF + EFV, FTC/TDF +LPV/r, FTC/TDF+ DRV+ r and STRIBILD were 58%, 75%, 78%, 84%, and 88%, respectively. In the cost -effectiveness comparison analysis, the annual total treatment costs are calculated as 12531 TL, 17524 TL, 24284 TL, 22987 TL, and 20868 TL, respectively. The total ICER analysis shows only STRIBILD, FTC/TDF+EFV and 3TC/AZT+EFV treatments are cost-effective, while the other treatment alternatives are not cost-effective. **CONCLUSIONS:** The HIV-1 treatment study was conducted in Turkey on the cost-effectiveness of this treatment strategy. The clinical efficacy and the cost-effectiveness of STRIBILD shows that it is an effective treatment strategy for HIV patients.

PIN81

COST-EFFECTIVENESS ANALYSIS OF THE APPLICATION OF ERTAPENEM FOR THE TREATMENT OF COMMUNITY-ACQUIRED COMPLICATED INTRA-ABDOMINAL INFECTIONS

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OBJECTIVES: To perform comparative pharmacoeconomic analysis of ertapenem in patients with community-acquired complicated intraabdominal infection in comparison with alternative therapy moxifloxacin. **METHODS:** Were reviewed research on the clinical effectiveness and safety of use of ertapenem to prevent postoperative inflammatory complications and lethal outcomes. Assess of the quality of research and level of evidence obtained in these results was performed. The results of the research PROMISE formed the basis of pharmacoeconomic model. The effectiveness of therapy in studies was assessed by the frequency of clinical and bacteriological success of treatment with the use of different modes of antibacterial therapy. We calculated the difference in direct medical costs for treatment by ertapenem and moxifloxacin and cost-effectiveness ratio. **RESULTS:** According to a study J. J. De Waele et al., in patients treated with ertapenem, the frequency of clinical effect of treatment was higher than in the group of patients receiving moxifloxacin: 93,4% and 89.5%, respectively. The mortality rate associated with the development of severe sepsis, was also lower for ertapenem: 3,1% and 5.4% respectively. Direct medical costs accounted in the group of moxifloxacin with the average duration of therapy is 7 days was 1798 USD, in the group of ertapenem with the average duration of treatment 6.8 days - 1981 USD. When using moxifloxacin instead of ertapenem ICER for one additional prevented complication was 4688 USD, and for one surviving patient - 17027 USD. One way sensitivity analyses showed that the results of the model were not sensitive to changing the cost of ertapenem from 75% to 125 %. **CONCLUSIONS:** Pharmacoeconomic analysis showed that the application of ertapenem for the treatment of community-acquired complicated intra-abdominal infections is expensive but more efficient and economically justified strategy.

PIN82

QUADRIVALENT INFLUENZA VACCINE IN HONG KONG- A COST-EFFECTIVENESS ANALYSIS

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OBJECTIVES: The seasonal trivalent influenza vaccine (TIV) covers two subtypes of influenza A (A/H1N1 and A/H3N2) plus one of the two influenza B lineages circulating in humans. Co-circulation of both influenza B lineages (B/Victoria and B/Yamagata) was common in Hong Kong. We examined the difference in costs and quality-adjusted life-years (QALYs) gained by quadrivalent influenza vaccine (QIV), comparing to TIV, in age-stratified populations of Hong Kong from 2001-2010 years. **METHODS:** TIV-unmatched influenza B infection rates with QIV versus TIV were estimated by an epidemiology model. Model parameters included percentages of influenza B lineages in circulation, influenza B-associated hospital admission, age-specific population, vaccine coverage and effectiveness. Events (outpatient care, hospitalizations and death) caused by infection of the influenza B lineage not included in TIV coverage in each year were calculated. Cost savings and QALYs gained from reduced events with QIV were estimated. Incremental cost per QALY gained (ICER) by QIV versus TIV were estimated from Hong Kong's societal perspective. **RESULTS:** All-age mean reduction in influenza B infection rate (per 100,000) was 25.9 (95%CI 6.7-45.1). Highest age-specific rate reduction was 451.4 (95%CI 87.7-815.1) in ≥80 years, followed by 104.8 (95%CI 27.2-182.4) in 65-79 years and 13.2 (95%CI 7.0-19.4) in 6 months-4 years. Highest cost savings and QALY gain occurred in years with high percentage (81.8%-96.4%) of circulated influenza B lineage not covered by TIV. QIV was more cost-effective than TIV in 6 years when it cost USD1 more than TIV. When QIV was USD2, USD5 and USD10 more costly, it became cost-effective in 3, 3 and zero years, respectively. **CONCLUSIONS:** QIV was cost-effective in very young and older populations. Cost-effectiveness of QIV was subjected to unit cost of QIV versus TIV and percentage of circulating influenza B lineages.

PIN83

XPERT MTB/RIF ASSAY FOR RAPID DIAGNOSIS IN PATIENTS WITH SUSPECTED TUBERCULOSIS IN HONG KONG - A COST-EFFECTIVENESS ANALYSIS

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OBJECTIVES: Hong Kong is a developed city with intermediate tuberculosis (TB) burden of 90 per 100,000 population and low HIV prevalence. The diagnosis of TB in hospitalized patients was difficult due to atypical manifestation and low sensitivity of sputum acid-fast bacilli (AFB) smear microscopy examination. Failure to receive early anti-TB treatment during initial assessment was identified to be an independent predictor associated with increased risk of mortality. We examined the cost-effectiveness of rapid diagnosis with Xpert MTB/RIF in patients hospitalized for suspected active pulmonary tuberculosis (PTB) from the perspective of Hong Kong public health care providers. **METHODS:** A decision tree was designed to simulate outcomes of three diagnostic assessment strategies in adult patients hospitalized for suspected active PTB: conventional approach, sputum smear plus Xpert for AFB smear-negative, and a single sputum Xpert test. Model inputs were derived from literature. Outcome measures included direct medical cost, one-year mortality rate, quality-adjusted life-years (QALYs) and incremental cost per QALY (ICER). **RESULTS:** In base-case analysis, one-year mortality rate of the Xpert group was 9.0% with 8.289 QALYs gained. Comparing to smear plus Xpert, the Xpert group was more effective by an ICER of USD99. Conventional approach was the least preferred option with highest cost, lowest QALYs gained and highest mortality rate. Sensitivity analysis showed that Xpert would be the most cost-effective option if the sensitivity of sputum AFB smear microscopy was 74% or less. In 10,000 Monte Carlo simulations, the probabilities of Xpert, smear plus Xpert and conventional approach to be cost-effective were 94.5%, 5.5% and 0%, respectively. **CONCLUSIONS:** Xpert sputum test appears to be a highly cost-effective diagnostic strategy for patients with suspected active PTB in intermediate burden area like Hong Kong.

PIN84

COST EFFECTIVENESS OF QUADRIVALENT INFLUENZA VACCINE OVER TRIVALENT VACCINE IN FRANCE

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OBJECTIVES: To estimate the cost effectiveness ratio of a inactivated quadrivalent influenza vaccine compared to the trivalent ones in France. **METHODS:** During some epidemic influenza seasons a mismatch between the circulating B strains and the one included in the trivalent vaccine is observed. The difference of vaccine protection by the quadrivalent vaccine due to the inclusion of both circulating B strains should avoid the occurrence of a number of consultations and complications resulting in hospitalizations and deaths. A decision tree model was built to compare the efficacy and costs of the two vaccines for an average epidemic influenza season in the French setting. The number of hospitalization and deaths associated with influenza were estimated from an analysis of available French data. Estimates of these medical events were calculated using French standard costs in 2012 and observational data. Deterministic and probabilistic sensitivity analyses (PSA) were conducted. **RESULTS:** The base case analysis considered the global French vaccinated population during an average epidemic season between seasons 03/04 and 11/12 with a B circulating virus rate of 23% and a mismatch rate of 58%. The perspective is collective. The number of avoided consultations for influenza was estimated at 6,214 and the number of avoided hospitalizations and deaths at 614 and 372 respectively. The number of life years gained (LYG) was estimated at 5,382. The cost per LYG was estimated at 3,138€/LYG. Sensitivity analyses showed clearly the importance of the B circulating virus rate combined with the mismatch rate highly variable according to influenza seasons. PSA showed that 100% of estimates in the acceptability curve were under 20,000€ per LYG in the base case analysis. **CONCLUSIONS:** The cost effectiveness ratio of an inactivated quadrivalent influenza vaccine compared to trivalent ones in the French setting can be considered acceptable.

PIN85

COST-EFFECTIVENESS OF DOLUTEGRAVIR, A NEW GENERATION INTEGRASE INHIBITOR, IN HIV-1 TREATMENT EXPERIENCED PATIENTS IN FRANCE

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